

LISTING OF CLAIMS:

Claim 1 (currently amended): A camera assembly of a printing press comprising:

a housing that is movable by a transport system laterally with respect to a moving substrate of the printing press;

an image sensor positioned within said housing and adapted to acquire images of ~~[[a]]~~ the moving substrate of a printing press;

a light source positioned within said housing;

an optics assembly positioned within said housing;

a microprocessor positioned within said housing; and

image processing hardware positioned within said housing and adapted to analyze the acquired images of the substrate.

Claim 2 (original): The camera assembly of claim 1 wherein said image sensor is a CCD scanner.

Claim 3 (original): The camera assembly of claim 1 wherein said image sensor is an area scanner.

Claim 4 (original): The camera assembly of claim 1 wherein said light source is a strobe type light.

Claim 5 (original): The camera assembly of claim 1 wherein said optics assembly include a lens.

Claim 6 (original): The camera assembly of claim 5 wherein said optics assembly includes at least one mirror.

Claim 7 (original): The camera assembly of claim 1 wherein said image processing hardware includes at least one FPGA.

Claim 8 (original): The camera assembly of claim 1 and further including a power supply.

Claim 9 (original): The camera assembly of claim 1 and further including a communication interface.

Claim 10 (cancelled)

Claim 11 (currently amended): A camera assembly for use in scanning a paper substrate of a printing press, acquiring an image and processing the image, said assembly comprising:

a housing that is movable by a transport system laterally with respect to the paper substrate of the printing press;

a camera positioned within said housing;

a light source positioned within said housing;

a microprocessor; and

image processing hardware positioned within said housing.

Claim 12 (currently amended): A camera assembly for use in scanning a paper substrate of a printing press, acquiring an image and processing the image, said assembly comprising:

a housing that is movable by a transport system laterally with respect to the paper substrate of the printing press;

a scanner positioned within said housing;

a light source positioned within said housing;

image processing hardware positioned within said housing and including an FPGA; and

a digital communication interface positioned within said housing.

Claim 13 (currently amended): A camera assembly for use in scanning a paper substrate of a printing press, acquiring an image and processing the image, said assembly comprising:

a housing that is movable by a transport system laterally with respect to the paper substrate of the printing press;

a CCD area scanner positioned within said housing;

a strobe light source positioned within said housing;

a microprocessor within said housing; and

image processing hardware positioned within said housing, wherein said image processing hardware includes at least one FPGA.

Claim 14 (currently amended): A camera assembly for use in scanning a paper substrate of a printing press and determining color register error, said assembly comprising:

a housing that is movable by a transport system laterally with respect to the paper substrate of the printing press;

a camera positioned within said housing for acquiring images of the substrate;

a light source positioned within said housing;

an optics assembly positioned within said housing; and

image processing hardware positioned within said housing for processing the acquired images and determining any color register error.

Claims 15-17: (cancelled)

Claim 18 (currently amended): A camera assembly for use in scanning a paper substrate of a printing press, obtaining an image, and processing the image all within the assembly, the printing press having a sideframe and the paper substrate have an extremity, said assembly comprising:

a housing dimensioned so that said housing is mountable at the extremity of the paper substrate without interference from the sideframe of the printing press, wherein the housing is movable by a transport system laterally with respect to the paper substrate of the printing press;

a camera positioned within said housing;

a light source positioned within said housing;

an optics assembly positioned within said housing; and

image processing hardware positioned within said housing.

Claim 19 (original): The camera assembly of claim 18 wherein said housing has a width dimension of no more than four inches.

Claim 20 (original): The camera assembly of claim 18 wherein said housing includes at least one rib to dissipate heat.